TOP SECRET

CHAL 0521
Copy 5 of 5

13 January 1959

MEMORANDUM FOR: Deputy Director (Plans)

SUBJECT: Altitude and Range Capability U-2 Aircraft

1. The following is in reference to your query pertaining to the recent zoom--climb intercept tests against the U-2.

2. The first intercept run was made with the U-2 at 60,000 feet. This was not a realistic altitude. The intercept served to orientate and familiarize pilots with procedures.

3. The remainder of the tests began each day with the U-2 at approximately 64,000 feet (1 plus 45 after T.O.). This altitude compares favorably with the published cruise climb tables. The aircraft altitude when leaving the target area was approximately 67,000 feet (5 plus 15 after T.O.) which again compares favorably with the attached cruise climb chart.

4. The values on the attached graph are for an NACA standard day. The altitude advantage for an aircraft without slipper tanks for each hour of flight is as follows:

Hour	Altitude Difference
1	2100 feet
2	1950 feet
3	1850 feet
4	1600 feet
5	1500 feet
6	1500 feet
7	1400 feet
8	1300 feet
9	1300 feet
10	1400 feet

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5. Factors which affect altitude are as follows:

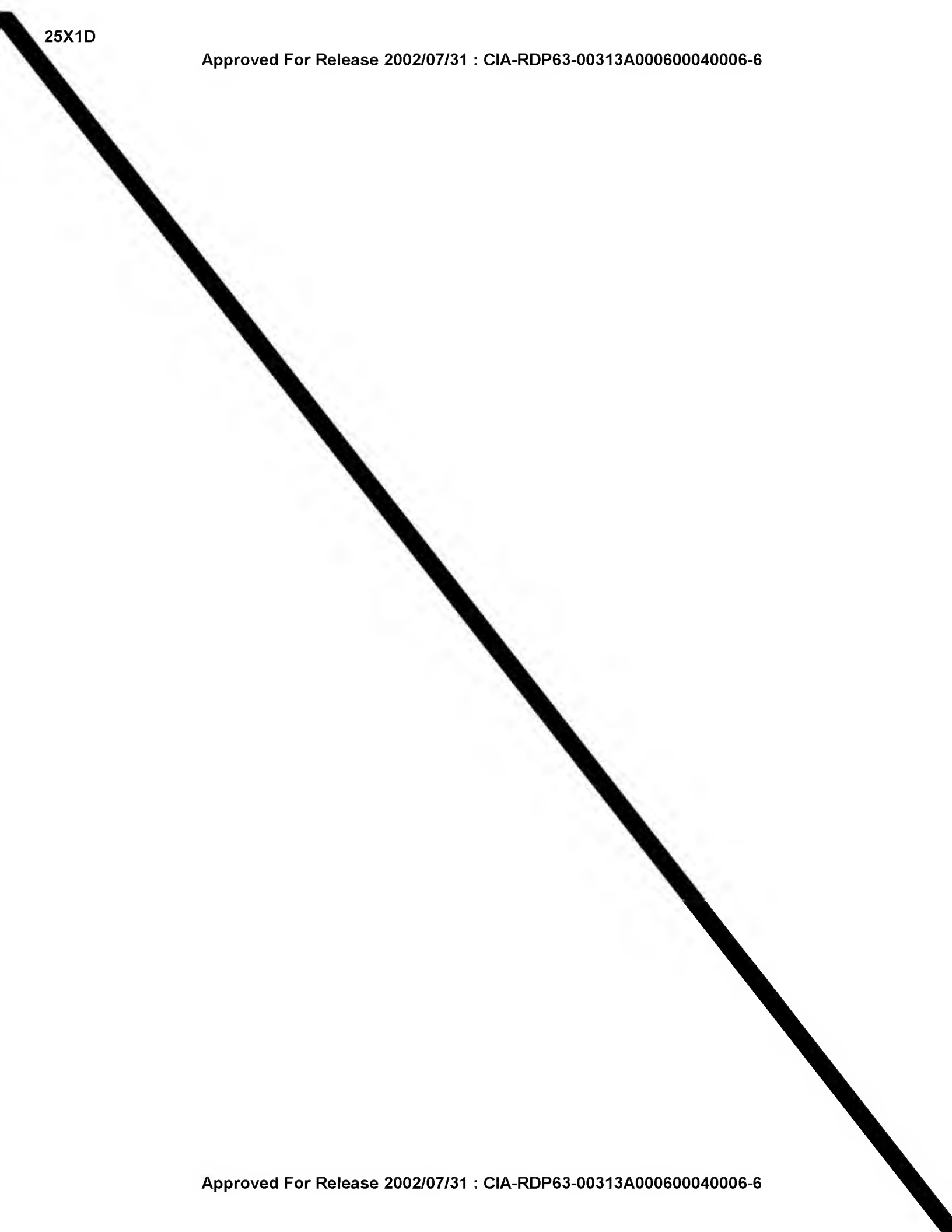
25X1D a. Cold day—actual cruise altitude is higher. Altitude increases [redacted] feet per degree colder than standard.

25X1D b. Hot day—actual cruise altitude is lower. Altitude decreases [redacted] feet per degree warmer than standard.

25X1A [redacted]
Colonel USAF
Director of Operations

Att: Chart

AFS:tbm
1 - Addressee
2 - Dep Dir, DPD
3 - Ops subj
4 - Ops chron
5 - CHAL chron



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